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MOTIVATIONS of small - woodland owners

A Summary of Nine State Studies
July 1965

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FOREWORD

In view of the forest crops situation, the anticipated increase in future demand for timber, and the need to reach and stimulate more forest owners in the application of recommended forestry practices as indicated in the Forest Resource Report, No. 14 of 1958, the Forestry Subcommittee of the Extension Committee on Organization and Policy of the National Association of State Universities and Land-Grant Colleges in 1961 requested Dr. J. L. Matthews, Director of the Division of Extension Research and Training of the Federal Extension Service, to have prepared a suggested study plan and proposed questionnaire for consideration by the State Extension Services in studying the motivations of small woodland owners for improved woodland management. Many States were interested. Some had recently completed a comprehensive forestry study. Eventually eleven States participated in the study. Nine of these have prepared a report and disseminated the findings in the States. The present report is a general summary of the findings and implications of the nine individual State reports.

Samuel W. Hoitt, Director
Cooperative Extension Service
University of New Hampshire and
Chairman, Forestry Subcommittee
of ECOP

ER&T-62(4-65)

ACKNOWLEDGEMENTS

The following persons had leadership in the eleven State Extension Services that conducted the study. Two States* have not as yet completed the study and prepared a report.

Arkansas	Harold A. Howell, Extension Forestry Specialist Clay R. Moore, Extension Economist
Georgia	C. D. Dyer, Extension Forestry Leader
Kentucky*	James A. Newman, Extension Forestry Specialist Frank Santopolo, Extension Rural Sociologist
Louisiana	A. S. McKean, Extension Forester J. H. Jones, Program Analyst
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Tennessee	John B. Sharp, Jr., Extension Forester James G. Warmbrod, Extension Forester Robert S. Dotson, Extension Training and Studies Specialist
Virginia*	Carl J. Holcomb, Extension Forestry Leader

Other States have completed forestry studies in recent years. Those that have come to our attention are Alabama, California, North Carolina, Michigan, Washington and West Virginia.

The contribution and cooperation of the USDA Forest Service including the research stations, State Forest Services, State Experiment Stations and other interested agencies, with the State Extension Services are much appreciated. They helped make the studies successful.

MOTIVATIONS OF SMALL-WOODLAND OWNERS
A SUMMARY OF NINE STATE STUDIES

Fred P. Frutchev and W. K. Williams - Federal Extension Service

Situation

When the study was first started in 1961, projections^{1/} of future demand for timber in the United States indicated that by the year 2000, the forest resource must be in condition to grow 104.3 billion board feet of sawtimber annually or over twice the current net growth of 47.3 billion board feet.

National statistics^{1/} at that time showed that 55 percent of all commercial forest land in the United States was held in 4.5 million ownerships of less than 5,000 acres. These woodlands grew substantially less timber per acre than well-managed large private and public ownerships.

The lands owned by many forest industries and by State and Federal governments already have programs of forest management. They are in the business of forest crop production. Such ownerships are in good position to command the facilities and personnel necessary for good forest management. But, together, industrial and public lands comprise less than half the commercial forest area in the United States.

Small forest ownerships with 55 percent of the area must obviously be looked to for a substantial portion of the growth needed. It is not likely, however, that these small ownerships can be expected to reach the intensity of management that can be expected on industrial and public woodlands.

More recent national statistics^{2/} indicate that the timber supply situation has improved, but to keep pace with demands by the year 2000 "improvements in technology will be needed" along with "lower costs at all stages of timber production and utilization... A number of technical forestry measures could be strengthened to increase future supplies of timber in line with projected demands." In addition to meeting long term future demand projections, action will be necessary through "adjustments to make more complete use of available timber supplies and particularly by greatly expanded efforts to grow additional timber."

^{1/}Timber Resources for America's Future, Forest Resource Report No. 14, Forest Service, USDA, 1958.

^{2/}Timber Trends in the United States, Forest Resource Report No. 17, Forest Service, USDA, 1965.

Objectives of the Study

The objectives of the study are to obtain information concerning the following questions which will be useful in Extension forestry program planning.

1. What motivates small-woodland owners to use or not to use good woodland management practices?
2. To what extent are small-woodland owners aware of and using good woodland management practices?
3. How do owners who are innovators differ from noninnovator owners?
4. What can be done to influence small-woodland owners to use better woodland management practices?

Methodology

The assignment of the committee^{3/} was to develop a suggested study design and questionnaire for participating State Extension Services to modify to meet the needs of the individual States. Nine States participated in the study to the point of preparing a report. These reports are the basis for this summary.

The committee met 11 times over a period of four months to develop a practical study design and questionnaire.

Small-woodland owners were defined as owners with 5 to 2500 acres of woodland. Innovators are persons who are among the first to try new agricultural practices. It was anticipated that contrasting innovators and noninnovators would result in suggestions useful in planning programs for owners of small woodlands. It was suggested that each group be selected by random list sampling from a list of each group.

The questions in the questionnaire were such that the interviewers must be acquainted with forestry and particularly with small-woodland owners. They would include foresters, extension specialists, county agents, etc.

^{3/}The committee was composed of: Fred P. Frutchey, Extension Research Specialist, Division of Extension Research and Training, W. K. Williams, Forestry Specialist, Division of Agricultural Science, Technology and Management, and A. M. Sowder, (retired) Forestry Specialist, Division of Agricultural Science, Technology and Management, all of the Federal Extension Service; and T. A. McClay, Research Forester, Division of Forest Economics and Marketing Research, Forest Service.

Provision was made for training the interviewers in using the questionnaire and in the interviewing procedure, for developing an interview time schedule, and for editing the completed questionnaires each night.

The study plan suggested that each State have a committee to guide the planning and conduct of the study. It included interested persons, such as extension forestry specialists, extension research specialists, experiment station persons, State and county foresters, county agents, industry foresters, etc.

Each participating State conducted the study, analyzed and compiled the data and prepared a report. The present report is a summary of the findings in these reports. The findings presented here are based on the States reporting those findings.

The reports from eight States included 966 small-woodland owners who were innovators and 1527 noninnovators. One State reported 200 owners but did not separate them into innovators and noninnovators, making a grand total of 2693 respondents in the nine States' reports.

Motivation

People do things that promise satisfactions and avoid doing things that promise dissatisfactions. A woodland owner will engage in a forestry practice if it offers satisfactions to him and if it does not interfere with other important satisfactions.

He feels a need to get the satisfaction that the activity promises. It is a "felt" need or recognized need because he wants to reach a desired situation of his own in contrast to an unrecognized need that someone else sees. The "unfelt" or unrecognized need is not motivating to the woodland owner.

It is helpful to think of a "need" as a disparity between a present situation and a desired situation. It can be pictured as follows:



If it is a felt need, there is a drive or desire to close the disparity and reach the desired situation. The strength of the drive depends upon the strength of the need. A mild felt need has a mild drive. An overwhelming felt need will have an overwhelming drive to meet the need -- "nothing will stand in the way."

Although about 9 out of 10 small-woodland owners said their woodland was of some benefit^{4/}, there did not seem to be a strong desire to try to close the gap by the use of better woodland management practices. The use of better woodland management practices did not seem to offer sufficient satisfactions. In fact it might deny the owner satisfactions from other endeavors as can be seen by the reasons the owners gave for not using better practices.

The use of time was one of the most important reasons small-woodland owners gave. They indicated that "more rewarding activities claimed the owner's time." Their time was occupied with activities which gave greater satisfactions and a higher net return. As a business enterprise, many felt that more attention to their woodland would not be economically profitable.

The use of money was another of the most frequently mentioned reasons. Many small-woodland owners indicated that "the cost of good woodland management practices outweighs possible benefits" and although "a net benefit would result, it was too small to bother with." As one owner bluntly and forcefully said, "It don't pay."

A third important limiting factor was the timespan. Woodland owners indicated that there was "such a long time to grow timber and get an income from it." The fourth main reason was lack of technical knowledge.

Although the above reasons expressed obstacles to the use of better management practices, nevertheless the owners did see benefits from their woodland. They gave income from their woodland as a primary benefit, mentioning marketable timber and stumpage sales. Farm and home use for buildings, fence posts, fuel wood, etc. stood high. Other benefits mentioned included recreation, hunting, conservation, shade for livestock, investment, source of water supply, wind protection and own enjoyment. The latter benefits tended to vary considerably from State to State.

Generally speaking, small-woodland owners value their woodland but are not willing to put more time and money into using better woodland management practices.

^{4/} This proportion varied somewhat from State to State and even within a State.

One State^{5/} report summed it up in light of two assumptions. "The first (assumption) is that in a free enterprise economic system the primary objective of an entrepreneur or unit of management is to maximize profits. The statement that small-woodland tracts are 'poorly managed' might be entirely accurate if the objective of management were that of maximum physical production. However, when the objective is to maximize profits it may be 'poor management' to devote limited resources to a small woodland if returns from such resources would be greater when used elsewhere." This is a decision which can only be made by the owner after getting all the facts.

"The second assumption is that prices prevailing under the present market system and institutional arrangements are not such as to guarantee that a supply of forest products adequate for future needs will be forthcoming."

"It follows from these assumptions that there are both private and public interests involved in the question of how to increase the output of forest products on small private woodlands. Both interests can be served when public efforts tend to stimulate and reinforce private efforts."

The reports substantiate the view that many woodland owners do not perceive their woodland as promising sufficient income in comparison with other enterprises they might engage in. This deters owners from using more management practices to produce income. It appears that the felt need concerning their woodland is to increase income rather than the public need for timber production.

Woodland owners recognize that they can get benefits from their woodland without the use of management practices. They perceive of their woodland as a source of timber for farm and home buildings, fence posts, fuel wood, etc. If the cost of management practices is too high, they can forego these practices, but get some value out of their woodland. In addition, in some States recreation, aesthetic values and investment were benefits they foresaw for their woodland. Nevertheless, in general, the anticipation of income was high among the benefits expected whether or not they improved their woodland.

Among the reasons woodland owners gave for not paying more attention to their woodland were the lack of time of the owner, disability, age, distance from woodland, lack of technical knowledge and "such a long time to grow timber." This suggests the possibility of making arrangements whereby the woodland be managed by another party on a share or fee basis.

Three alternative arrangements were presented to owners asking them to indicate which they would be interested in, under terms satisfactory to them.

^{5/}Arkansas - Clay R. Moore, Extension Economist

1. Making private arrangements with a forester or company.
2. Joining other owners in the area in an association or cooperative which would hire a private forester.
3. Joining other owners in this area in an association or cooperative which would be provided a forester by the government.

Although it varied from State to State, about 50 percent of the woodland owners preferred one of the three arrangements; and 50 percent preferred none of the three arrangements.

These data indicate that there is a disposition among woodland owners to make arrangements to have their woodland managed for them if the terms are satisfactory. The idea is not new. Woodland owners in some areas have made private arrangements with lumber or pulp and paper industries for managing their woodland.

Use of Woodland Management Practices

The purpose of Extension is "to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same." ^{6/} It has been helpful to analyze the process of diffusing information in terms of the behavior of the recipient of the information. Five stages ^{7/} have resulted from this analysis. They are:

- "Awareness - the first knowledge about a new idea, product or practice;
- Interest - the active seeking of extensive and detailed information about the idea, to determine its possible usefulness and applicability;
- Evaluation - weighing and sifting the acquired information and evidence in the light of the existing conditions into which the practice would have to fit;
- Trial - the tentative trying out of the practice or idea accompanied by acquisition of information on how to do it;
- Adoption - the full-scale integration of the practice into the on-going operation."

^{6/}Smith-Lever Law, May 8, 1914.

^{7/}Lionberger, Herbert F. - Adoption of New Ideas and Practices, The Iowa State University Press, Ames, Iowa, 1960. pp 3-4.

One State^{8/} developed and used a quantitative measure to indicate the degree to which the respondents had progressed in the diffusion process. This was used to obtain a Total Practice Diffusion Score. It was used as a measure to examine relationships between it and other characteristics of the respondents with the following results.

1. Age of Owners - The younger the owners the higher the Total Practice Diffusion Score. There was a slight tendency in this direction.
2. Education - The more formal education the owners had the higher the score. This was a strong tendency.
3. Size of woodland - The larger the acreage the higher the score. Strong tendency.
4. Proportion of land in woodland - The higher proportion of land in woodland, the higher the score. Moderate tendency.
5. Distance of woodland from residence - No relationship.
6. Occupation of owner - Professional and business woodland owners had the highest score; full-time farmers, part-time farmers and retirees were next; wage earners had the lowest score.
7. Farm enterprise - Owners with forestry as a main farm enterprise were highest; owners with other farm enterprises were next; and nonfarm owners had the lowest score.
8. Recency of timber marketing - Owners who marketed some timber more recently had a higher score.
9. Gross timber sales - Owners who sold more timber (dollar value) during the past five years had a higher score.
10. Interest of owners in woodland management - Owners who were interested had a higher score than those indifferent or not interested. Interest was judged by the interviewer.
11. Sex of owner - Men owners had a higher score than women owners. There were 395 men owners and only 30 women owners.

^{8/}Tennessee - Robert S. Dotson, Extension Training and Studies Specialist.

Innovators and Noninnovators

Some people are more prone to trying out and adopting new ideas. They have been called innovators. At the other end of the scale there are persons who are last to try out and adopt new ideas. They have been called "laggards."

The recognition of these tendencies among people has resulted in a classification of adopters which seems to follow the normal curve^{9/}.

2½%	Innovators
13%	Early adopters
34%	Early majority
34%	Late majority
16%	Laggards

Eight States compared an innovator group with a noninnovator group, hypothesizing that there would be a difference between the groups in many respects in favor of the innovator group.

The selected innovator group was probably not limited to the 2½ percent innovators in the above classification, but probably included some of the early adopter group. They were persons whom county extension agents considered to be among the first to adopt agricultural practices.

The results were about as expected. In contrast to the noninnovators, the innovators:

- (a) Had more formal education.
- (b) Were younger.
- (c) Were more interested in woodland improvement.
- (d) Were more acquainted with the ACP program.
- (e) Had participated more in the ACP program.
- (f) Were more interested in market and price information, knew where to get it, and preferred professional advice.
- (g) Had used more woodland management practices. In practically every practice the innovators were further along in the diffusion process than the noninnovators.
- (h) Were more interested in a woodland management plan.

^{9/} Rogers, E. M., and Beal, G. M. Reference Group Influence in the Adoption of Agricultural Technology, Ames, Iowa State University, 1958, p.33.

- (i) Tended to have a woodland management plan.
- (j) Favored at least one of the three arrangements that were presented for management of their woodland.
- (k) Had woodland acreage which was only slightly larger.
- (l) Had a more friendly attitude toward the survey.
- (m) Lived about as far from their woodland as the noninnovators.
- (n) Gave reasons for not using better management practices which were about the same as those of noninnovators.

Implications for Extension Forestry Programs

The data from these nine State studies involving 2693 small-woodland owners have certain implications for extension agents in counties where small woodlands exist.

The following are practical and effective methods suggested by the nine studies to strengthen county extension forestry programs. All suggestions will probably not apply in all counties. Furthermore, some counties have been using some of the suggestions. County extension agents can select methods which offer most promise for upgrading the extension forestry program in their counties.

Program Planning

1. Small-woodland owners think in terms of their own situation and see their woodland through their own eyes. They are mainly concerned about the satisfactions they can get from their woodland. Keep this in mind.
2. Consider whether forestry is or could be a significant farm enterprise in the county. Have you overlooked its possibilities for increased family income? Is better woodland management important enough to be a part of the county extension program? If so, think of the possibilities of a subcommittee on woodland improvement. Discuss it with your county extension planning committee.
3. Select forestry subcommittee members who are interested in forestry and who are good leaders. Have a "live" forestry committee that will develop and help conduct a dynamic forest improvement program. Remember that your interest and enthusiasm are contagious.

4. Consider the possibility of representatives of other agencies, public and private, as members of the forestry subcommittee. Their contribution could help advance the county forestry program.
5. Retirees often like something to do. They have a large potential for contributing. Interest and encourage them.
6. Remember, too, that some persons are more innovation-minded than others. They like to try new things. They are challenged by new ideas. Begin with them. They can eventually become demonstrators.
7. Make a list of small-woodland owners in the county. Subtract those who for various reasons probably shouldn't make a greater effort to improve their woodland. The balance is your target audience. Direct your main efforts at them. Also identify your innovators.
8. There are usually two main groups of woodland owners in a county, one with larger acreages and one with smaller acreages. Marketable timber may be the objective for the larger acreages while farm and home use timber, fence posts, firewood and so on may be the objective of the smaller acreages. Make your program fit each group.

Program Action

9. The county forestry program is general and not applicable to every farm situation without modification. Make it fit the conditions of an individual farm and show how the forest resource can contribute to the effectiveness of the farm management plan and provide satisfaction for the family.
10. Arouse family interest in their woodland as a longtime investment. Show them how with a little effort they can harvest some of their woodland from time to time for income, or manage it to put a son or daughter through college, or for some other use for which they need some extra money. Involve the family. Think of their woodland as a kind of insurance against what might happen in the future or for some unexpected event. If sickness or accident falls on the family they may cut some trees for the needed money, but they should do selective cutting rather than indiscriminate cutting and should replant where necessary to establish a stand of trees.

11. Some owners can improve their woodland with a minimum of effort and expenditure of money. Explain how they can recover some costs of woodland improvement by participation in the ACP program and receive assistance from industry and public agencies.
12. Develop the concept of the multiple-use of the forest resource. More and more people are engaging in outdoor recreation, including hunting, fishing, picnicking, camping and so on. Show owners how they can get more out of their woodland.
13. You may find a small group or several small groups of owners who are interested and desire more information about woodland management. This suggests the possibility of training sessions or forest management schools. Point out advantages and get their views on planning training sessions.
14. Use direct mail to develop and maintain interest and create awareness that you and others are interested. Most of the small-woodland owners were aware of the woodland management practices but their interest was weak. Put the absentee owners on your mailing list. Keep them informed.
15. Many are interested in market information and prices. Direct mail can bring it to them. Direct mail takes little time to prepare and reaches many owners with information that creates awareness and develops interest.
16. Good markets are essential and help to stimulate interest in forest management. See what can be done through rural leaders to develop good markets.
17. Don't overlook the possibilities of interesting the homemakers. A half-hour or even 15 minutes on forestry improvement at home demonstration club meetings with an attractive poster and an appealing handout leaflet may do more than we think. Make woodland improvement a family affair---within the Extension staff, too. Appeal to family goals as motivation for efforts to improve the woods.
18. Over 77,000 boys and girls^{10/} were enrolled in 4-H forestry projects in 1961. Youth are reached at an early age with woodland improvement information and carry on projects involving recommended woodland practices. This builds for the future concerning people as improved woodland management builds for the future concerning trees.

^{10/}Gordy, A. S. Statistical Summary of 4-H Club Work and Work With Young Men and Women, Federal Extension Service, ESC-540, 1962.

19. Investigate the possibility of woodland associations or cooperatives whereby the owners employ a manager to develop their woodlands on an economical basis. Or employ a private company to manage their woodland on satisfactory terms. About half of the respondents in the study indicated an interest in some such arrangement.

A listing of the implications of the findings of the studies in the nine States would not be complete without stating two further implications for consideration about the future of educational programs with small-woodland owners.

20. Small-woodland owners are, generally speaking, economically-minded with respect to their woodland. They would spend more effort on woodland improvement if it increased their income and if it paid them for their time and effort. They are concerned about their input-output ratio being more than 100 and comparable to that of some other enterprise they might engage in. They have their self-interest to consider in addition to the public's interest in timber production. Think about what you would do if you owned their woodland. Agents need more research data showing that it pays owners in their circumstances to use better woodland management practices.
21. In some counties where there is a vast amount of woodland in small holdings, the agent may spend full or a substantial part of his time on forestry improvement. In other counties the agent may spend his time on crop or livestock enterprises which have a higher priority over the forestry program. In those counties a more active and intensive educational program for small-woodland owners would require additional assistance in developing and implementing such a program.

Cooperative Extension Work: United States Department of Agriculture
and State Land-Grant Colleges and Universities Cooperating.

